Leasing has similarities to leveraging, in that both are methods used to expand control over resources.

In addition, lenders may require that producers use one or more risk management strategies to increase the likelihood of timely payments on financial obligations. Indeed, lenders' recommendations can have an important influence on producers' risk management decisions. A survey of Texas lenders and producers in the late 1980's, for example, indicated that the use of risk management practices—including hedging, forward contracting, crop insurance, farm program participation, and diversification—resulted in lenders viewing loan requests more favorably (Knight, Lovell, Rister, and Coble). Using a logit model, this research also found that lenders can greatly increase the probability of their borrowers adopting certain risk management practices if the use of those practices is recommended by the lender.

Regardless of lender recommendations, empirical research provides evidence of the effectiveness of such risk management strategies. As discussed earlier, studies show that the use of hedging or options reduces financial risk and improves cash flow, potentially lowering a farmer's credit risk (Turvey and Baker, 1989). Because of this risk reduction, high-debt producers with low credit reserves would be expected to hedge more than low-debt producers with large credit reserves (Turvey and Baker, 1990). Turvey and Baker's results support the notion that lenders will benefit from producers' hedging (and presumably, their use of other risk management strategies) because it decreases portfolio riskiness (Heifner, 1972a).

## Leasing Inputs and Hiring Custom Work

Producers can also manage their farming risks by either leasing inputs (including land) or hiring workers during harvest or other peak months. Leasing refers to a capital transfer agreement that provides the renter (the actual operator) with control over assets owned by someone else for a given period, using a mutually agreed-upon rental arrangement (Perry, 1997). Farmers can lease land, machinery, equipment, or livestock.

Leasing has similarities with leveraging (a topic discussed previously in this section), in that both are methods used to expand control over resources. In addition, both commit the farmer to regular payments. Leasing appears, however, to have some advantages. One advantage is that control can be gained over long-life inputs (such as land and machinery), without making long-term payment commitments. In addition, leasing provides producers with flexibility in allocating their asset portfolios-a producer can be in either the farming business or the land ownership business, without being in both.

Leasing has potential advantages to those who are renting. Leasing improves the renter's flexibility to respond to changing market conditions. In addition, leasing reduces the long-term fixed payments on borrowed capital that may strain liquidity in years of reduced output, and can reduce both financial and production risk for the renter (Sommer and others, 1998). In essence, leasing limits fixed costs, providing greater flexibility for the renter to adapt. It also offers a way to enter farming or to manage the size of the operation without requiring large investments of capital. One disadvantage, however, is that renting may limit the shortterm borrowing capacity of an operation because of the absence of collateral to back a loan (Sommer and others, 1998).

Advantages may further accrue from the perspective of the owner. Leasing allows the owner of the

asset to receive a return on his or her investment, and may reduce risk when a share rental arrangement is used if the owner is confident of the renter's management ability. In the case of a cash lease, the owner's income risk is reduced substantially.

Leasing of land is common in U.S. agriculture. According to USDA's ARMS data, about 9 percent of U.S. farm operators leased all of their land in 1995, 36 percent operated on at least some rental land, and 55 percent owned all of the land that they operated (Sommer and others, 1998). The ARMS results also indicated that full-owner farms (those that rented neither land nor other production assets) accounted for proportionally smaller shares of acreage, income, and sales than part-owner farms that rented land and other assets (fig. 8). Farms that rented land and other productive assets operated more than twice the U.S. average acreage, and had income and sales 3.5 to 4 times the national average. Although apparently increasing in recent years, leasing of nonreal estate assets is at a lower level

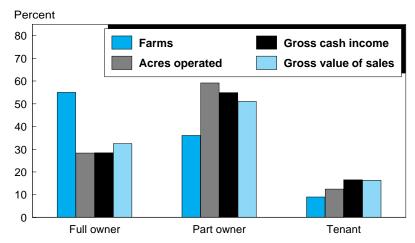
than of farmland (Barry; also see Koenig and Dodson).

Land rental arrangements can fall either in the category of "share renting" or "cash renting." With share renting, the landlord and tenant share in the operation's returns and each provides a predetermined set of inputs. The two parties usually share input costs in the same proportions as outputs and share the risk of yield variability. They typically have equal say in management decisions, although the tenant usually carries out most of the production decisions. Often, the owner provides land, while the renter provides machinery and labor. In practice, the renter (as well as the owner) may have several such arrangements.

The risk benefit of this type of arrangement is derived from the financial sharing of potential losses between the partners. If net returns are negative in a particular year, for example, losses are spread across the participants in the share rental arrangement. In essence, share leasing is a highly risk efficient form of financing, in that the operator's rental obligation moves in a perfectly correlat-

Land rental arrangements can be classified as either "share renting" or "cash renting."

Figure 8
Distribution of farms, acres operated, gross cash income, and gross value of sales by tenure class, 1995



Source: Sommer, Judith E., Robert A. Hoppe, Robert C. Green, Penelope J. Korb, Structural and Financial Characteristics of U.S. Farms, 1995: 20th Annual Family Farm Report to Congress, AIB-746, U.S. Dept. Agr., Econ. Res. Serv., November 1998. ed way with receipts from the operation, thus stabilizing the after-rent income position relative to a fixed-payment cash lease.

Share-rental arrangements can be difficult to manage, however, and the trend has been away from share leasing to cash leasing. Some of the impetus for this trend is on the part of landowners, particularly if the owner is absentee and questions arise regarding the renter's practices and skills. The owner may decide that his or her income risk is too great and that monitoring the management skills of the renter is too time consuming, and may instead opt for a cash rental arrangement. Some of the impetus for this trend is also from operators. It is easier to bid for additional tracts of land using cash bids than share bids, and cash leasing avoids the sharing of management responsibilities with several landlords.

With cash renting, the tenant rents the land for a pre-specified, fixed amount per acre. Cash renting affords the renter flexibility, as in a share-rent agreement. All of the yield and price risk are absorbed by the renter in a cash renting arrangement, and none remains with the owner, who receives only the agreed-upon cash rent payment (Perry, 1997). In addition, the renter typically provides inputs other than the land (including the machinery), reducing the fixed costs committed by the landowner. To better match rental arrangements with the needs of landlords and tenants, "hybrid" contracts are now being used. These "flexible" cash rents incorporate the risksharing advantages of share leases, without the sharing of responsibilities (Barry).

Research suggests that accounting rates of return may vary systematically with a farm's tenure position, but that these differences do not necessarily have implications for performance in terms of economic rates of return. Accounting rates of return for owned farmland have been low historically, with empirical research indicating that, as tenancy increases, accounting rates of return to assets and leverage positions tend to increase (Ellinger and Barry). Differences across tenure classes largely reflect the nondepreciability of farmland and its inherently low rate of return and low debt-carrying capacity because part of the returns to land ownership occur as capital gains rather than as current income (Barry and Robison). Low accounting rates of return may mask underlying economic rates of return, and provide producers with liquidity problems that worsen with the degree of financial leverage.

Owners who hire custom help (who provide skilled labor and their own equipment) can lower the costs associated with committing capital to fixed inputs. Producers may, at times, find that hiring workers full-time for the entire year may be costly when those workers are only essential during harvest or other peak months. With the use of custom workers (or hired or contract labor), the owner has a great deal of flexibility, potentially lowers his or her costs, and obtains specialized labor (Perry, 1997). The use of such arrangements, however, may increase the owner's risk because he or she would have less control over resources than if equipment were owned outright or workers hired full-time.

## **Insuring Crop Yields** and Crop Revenues

Insurance is often used by crop producers to mitigate yield (and hence, revenue) risk, and is obviously prevalent outside of agriculture. Property, health, automobile, and liability insurance are all

Cash renting affords the renter flexibility, although the renter absorbs all of the yield and price risk.